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PANAMA CANAL

THE GIFT OF THE PANAMA CANAL MUSEUM

REVIEW

Vol. 8, No. 6 BALBOA HEIGHTS, CANAL ZONE, JANUARY 3, 1958 5 cents



SEA ROUTES TO WORLD TRADE

THE CANAL'S ROLE IN NEW WORLD ECONOMY

The great day's coming Pacific Area Conversion Starts In March



Nearly all homes in Ancon, Balboa, and Balboa Heights will be converted to 60-cycle by the end of May. The map gives a general picture of the months in which various areas will be converted. San Juan Place in Ancon, the Gavilan area, and much of the Balboa flats are scheduled for conversion next June.

Conversion of frequency-sensitive household electrical equipment to 60 cycle is scheduled to be started in the Pacific terminal communities March 3 by the Consolidated International Electric Company which was awarded the Pacific Area conversion contract last September.

Under the schedule submitted by the contracting firm, the job, one of the biggest of the entire conversion project, is to be completed by about next September. The firm already has personnel at work and is making plans for an accelerated program.

Gordon B. Merchant has been assigned to the project as Administrative Supervisor and John G. Hobbs, Conversion Engineer, will be in charge of field operations.

The Consolidated Electric has been assigned office and warehousing space in two buildings on Diablo Road adjacent to the Storehouse Division yard. The larger of the two buildings, No. 42-D, will be used as an office and warehouse, with the former being located in the north end of the building which was originally erected just before the beginning of World War II for use in storing tires.

The accompanying map gives a general idea of the areas which are to be converted during the first three months. The areas on the map not indicated for conversion before the end of May will be started during June and the contractor's schedule calls for beginning conversion in Diablo Heights and Los Rios in July.

The gerrymander appearance of the

map comes from the fact that the conversion will be done for all houses serviced from the same feeder before progressing to another such group. For this reason there are some places where houses on one side of a street will be converted early in the schedule while those on the

Commissary Preview

60-Cycle Equipment Now On Display

Special plans have been made by the Supply and Employee Service Bureau to give Pacific side Commissary customers topnotch service during the Pacific Area conversion work.

Under plans developed, an employee who elects to take cash in lieu of conversion for any piece of equipment may have a 60-cycle replacement unit delivered and ready for use when the old refrigerator, washing machine, or air-conditioning unit is disconnected.

Aside from this special service, the Commissary Branch will have ample stocks to meet the requirements of Pacific side residents in all types of appliances and major household equipment.

A special display of the types of equipment to be on sale was placed on view during the past few days in the Housewares Annex of the Balboa

opposite side will not be converted until several weeks later.

During the early stages of the Pacific Area conversion, 60-cycle current will be supplied from the Gatun Hydroelectric plant. It will be possible to substitute or supplement this with power from the diesel generating plant at Cocoli. The first generating unit at Madden Dam Hydroelectric Station is scheduled for conversion for 60-cycle operation by May 1, after which that unit will supply the Pacific side.

The middle of last month the Consolidated Electric personnel began an inventory of the household equipment requiring conversion. This inventory is final, and 25-cycle equipment not listed during this inventory will not be converted at the cost of the Panama Canal Company.

For this reason, householders have been requested to cooperate fully with personnel making the inventory and to check their inventory lists with care.

According to the contractor's schedule, all but a few of the residential areas in Ancon, Balboa, and Balboa Heights will be converted by the end of May.

Since much of the conversion work will be in progress during the coming vacation season, employees are being requested to make arrangements to have someone assume responsibility while their equipment is being converted if they are to be away from the Isthmus at that time. The names and addresses of such persons should be listed with the contractor well in advance. Forms for such notifications can be obtained from the Consolidated Electric Company's office.

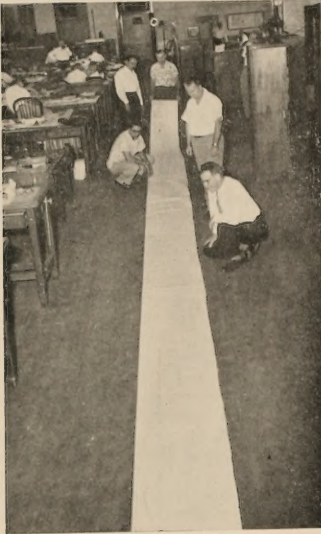
Householders can estimate that the conversion of their equipment will be made about two and a half months after the inventory now being taken. However, a final notice of the exact date of conversion will be given to individual householders one week in advance.

Commissary. The display consists of refrigerators, washing machines, driers, air-conditioning units, television sets, record players, and a wide variety of appliances, much of which have never before been stocked because of the difficulty in obtaining the equipment for 25-cycle operation.

Arrangements have been made for personal calls to be made by Commissary personnel at all homes where the contractor's representative has been notified that the owner will take cash in lieu of conversion for any equipment. Orders for replacement may be made at that time, and delivery will be made when Consolidated Electric returns some two and a half months later for the conversion.

Under the deferred payment plan recently authorized for Commissary purchases, most of the major electrical equipment can be bought under this plan.

Megaphone Needed



The men in the Engineering Division who work with blueprints of this length could use a megaphone. It is one of the blueprints of the Agua Clara diesel station which had to be consulted in connection with the power conversion project.

Reading clockwise, the engineers studying this blueprint are: Numan H. Vasquez, Joaquin Ponce, Edwin F. Barnes, Milton W. Canham, and Allen K. Miller.

Incidentally, there is another way of handling such blueprints: they can be cut into strips and bound in book form.

New Towing Locomotives Being Readied For Test

An experiment which can mean savings of many millions of dollars for the Panama Canal Company is about ready to be started at Gatun Locks.

Workmen, under the guidance of a factory representative, have been busy this week assembling the two powerful towing devices manufactured by R. G. LeTourneau, Inc., the Texas firm which has designed and made much of America's heavy equipment.

The new locomotives represent the first basic change in any Canal machinery used to put ships through the waterway. If the new devices prove successful it will mean the Company will save much money, as plans have been made to replace all of the existing towing locomotives in the near future.

The 60-ton LeTourneau locomotives are designed to work in tandem along the center wall of Gatun Locks and tow vessels which are normally pulled by six of the existing locomotives. The two machines have some strange appearing accessories—big rubber-tired fender pads to hold ships in tow away from the lock walls, and long whip booms to pass out towing lines to approaching vessels.

The locomotives will undergo extensive tests on the passing-tracks of the center wall before being moved to the towing-tracks for work. Meanwhile, Locks personnel have been assigned to learn their operation and characteristics to be ready for their actual use.

Board Of Directors Due Jan. 13 For Annual Meeting On Isthmus

The future of Atlantic side communities for American employees and their families will be one of the principal problems tackled by the Board of Directors of the Panama Canal Company at the annual meeting in the Canal Zone this month.

Because of the effect of the occupation of the Coco Solo Naval Station upon long-range plans, already well developed, for the housing and community installations to replace those in New Cristobal, Board members have scheduled a visit to Coco Solo as the first order of business and before any formal meetings are held.

Several of the Board members, including Assistant Secretary of the Army George H. Roderick, Board Chairman, are scheduled to arrive here Monday afternoon, January 13, aboard the Panama liner *Cristobal*. Other Directors are to come by plane.

Reservations have been made for the Directors at the Tivoli Guest House. A reception and cocktail-buffet in their honor will be held that night by the Canal Bureau Directors and Chiefs of the staff units.

The Board will go to the Atlantic side Tuesday morning, January 14, for an inspection of the housing and other buildings at Coco Solo.

Only one formal session has been scheduled. This will be held in the Board Room of the Administration Building on Tuesday afternoon and evening. In addition to a consideration of plans for employee housing and community facilities of a permanent nature on the Atlantic side, the formal meeting will be devoted to a management review, and consideration of budgetary and fiscal matters.

Members of the Board are scheduled to leave the Pacific side early Wednesday morning for the Atlantic side, going first to Gatun Locks for a demonstration of the new LeTourneau towing locomotives. The remainder of the morning will be devoted to the inspection of various Canal installations on the Atlantic side.

A barbecue luncheon has been planned at Fort San Lorenzo on Wednesday. Some of the Directors will board the *Cristobal* that afternoon and others, returning to the States by plane, will come back to the Pacific side that afternoon after the ship sails.

While subject to change, four Directors are to come to the Isthmus this month with Secretary Roderick on the SS *Cristobal*. They are Maj. Gen. Julian L. Schley, Charles S. Reed, Howard C. Petersen, and John W. Martyn.

Board members coming by plane include Maj. Gen. Glen E. Edgerton, Ralph H. Cake, Robert P. Burroughs, Ralph A. Tudor, and Ogden R. Reid.

Also coming to the Isthmus for the January Board Meeting will be W. M. Whitman, Secretary of the Panama Canal Company, whose headquarters are in Washington. Mr. Whitman is expected to arrive by plane several days prior to the meeting.

The Directors arriving by Panama Line will be met at shipside by Governor Potter and other Board members already on the Isthmus. The entire party will return to the Pacific side by special Panama Railroad motor-car.

The departure dates of the Directors are not definite in all cases, although some return on the *Cristobal*.

Congresswoman



The House Subcommittee on Panama Canal affairs made a thorough study of the Canal Zone's health and hospital facilities during its visit last month. Above is Rep. Leonor K. Sullivan, of Missouri, Chairwoman of Subcommittee, at Gorgas Hospital flanked by Col. Norman H. Wiley, Director, and Miss Beatrice Simonis, Chief Nurse, with other Canal personnel.

WHAT ABOUT COCO SOLO

**Breeze-swept onetime Navy base to provide housing
for former New Cristobalites, other Atlantic Siders**

Barring the unforeseen, the biggest news for the Atlantic side at the beginning of the New Year will be the exodus of several hundred residents from New Cristobal which will take place during the next few months.

An integral part of this story is the opening of a new Company-Government town at Coco Solo which for the several decades spanning the two World Wars was one of the bastions of the United States Navy's forces guarding the Atlantic entrance to the Panama Canal.

Most, but not all, of the New Cristobal residents are expected to receive housing assignments in the former Naval Base. In addition to the 175 employees occupying family quarters in the New Cristobal and Fort DeLesseps areas, there are 84 Canal families living in one-bedroom apartment buildings who are to be reassigned better housing. Also, there are a number of new employees who have not yet received permanent housing assignments.

As a consequence, the evacuation of the New Cristobal area will be only the bigger part of a population shift on the Atlantic side which surpasses any to take place there.

Not since the construction of the Third Locks towns of Margarita, Cocoli, and Diablo Heights has an integrated community for American employees become available for occupancy on such a scale. While the town of Los Rios—the Zone's youngest—is comparable to what Coco Solo is to become, its residents depend on facilities in other towns for shopping, postal service, schooling, and other such community services.

The extent to which permanent community facilities will be established in Coco Solo is still in the planning stage. Future plans for the townsite will constitute one of the principal subjects for consideration by the Board of Directors at the meeting here next month. If the decision is to develop it into one of the principal Canal Zone civilian towns, buildings and other facilities are available for the reestablishment of services which would, in many instances, outstrip those of most other Canal Zone towns.

Among the buildings or facilities available are tennis courts, baseball diamonds, hobby shops, swimming pools and pavilions, and one of the best clubs on the Isthmus. Buildings are also available for refitting or remodeling for use as a commissary, schools, a service center, and a post office.

While most of these facilities will be placed in use at an early date for the convenience of families residing there, the extent to which remodeling, renovation, and furnishing will be done for long-range

occupancy as the principal Atlantic side community is still for determination, being partly dependent on whether arrangements for permanent occupancy of the area and facilities can be made.

Meanwhile, all plans have been completed for the population transfer which is scheduled to begin about the middle of this month and which will continue for several weeks. It is expected that 300 or more families will move during this period.

In the survey conducted by the Housing Division last month, 297 questionnaires were returned by employees indicating their desire to move and indicating their choice of towns and types of quarters.

The tabulation of these showed the following results:

Present place of residence: New Cristobal, 166; Margarita, 90; Gatun, 26; and others, 15. The latter category includes new employees or others presently without housing assignments.

Place of residence desired as first choice: Coco Solo, 131; Margarita, 129; and Gatun, 37.

The quarters at Coco Solo do not require extensive renovation and they can be made available for occupancy at a rapid rate. It is planned to move about six families a day and all available personnel and equipment will be assigned to

this work during the moving period. Electric ranges will be installed as the quarters are occupied.

Although temporary renovations are to be made immediately, the Canal administration is considering plans for extensive improvements in the housing facilities in the future. Such items under consideration are electric water heaters, tile floors, and modernization of kitchens. This will be tied in to the overall study of improving the livability of permanent quarters.

The abandonment of New Cristobal as a townsite for American employees will bring a twinge of nostalgia to oldtimers of the Canal organization. The rim of Manzanillo Island has long been a place of residence for them and their predecessors who built and operated the Panama Railroad before them. While the name "New Cristobal" dates back only to about the time the Canal was opened, the history of the residential area span more than a century.

The entire Manzanillo Island became the property of the Panama Railroad under the original concession for its construction. The northern end of the island became a residential area during that time.

The development of New Cristobal and Colon Beach as that area appears today, came since the Canal was opened. Consideration was given at the close of the construction period to the establishment of a permanent townsite at Mount Hope. This idea was abandoned, however, in favor of developing the Panama Railroad section along Colon Beach. Consequently, the swampy area in the heart of the island was filled and an extensive housing development was undertaken in 1917. Many additional quarters were built there during the 1930's.

Since the area was never a part of the Canal Zone, New Cristobal was never developed as a town with all facilities for its population and residents there have depended upon the Commissary and Service Center in "Old Cristobal" for their shopping and amusements.

DESIGNED FOR TOMORROW➔

The pictures on the opposite page show a general view of the former Naval Station at Coco Solo and some of the buildings which will be used by the Panama Canal Company-Canal Zone Government.

The large picture across the top of the facing page shows the housing area, with its palm-bordered streets and walkways. The base, which was used for both air, submarine, and supply units during its heyday as a Naval installation, had accommodations for over 300 families; 280 of these units were being made available to the Company-Government.

Immediately below the large picture appears one of the two swimming pools at the former Navy station. At the right, in the center of the opposite page is the former Officers Club, one of the most handsome and modern buildings in the area.

Below, at the left of the opposite page, is one of the buildings which provides two-bedroom apartments. There are 152 such suites. In addition to the two-bed-

room apartments, the Coco Solo base has 128 family quarters in four-family buildings, each unit of which has three or more bedrooms. With the exception of four quarters, all of the housing is in four-apartment buildings.

At the right, in the lower row, are two of the public buildings which are being made available to the Company-Government. The upper of these two was formerly used as a commissary and post exchange, and has a large second floor room which was used for sports. This building would require little remodeling for a Panama Canal Commissary and Service Center. The lower building is the station's former hobby shop, which might be used by groups interested in such activities.

Water, electric, and sewer systems are in place; the electric system had already been converted to 60 cycles. The Coco Solo area is located about five miles from the Cristobal piers and four miles by road from the center of Margarita.



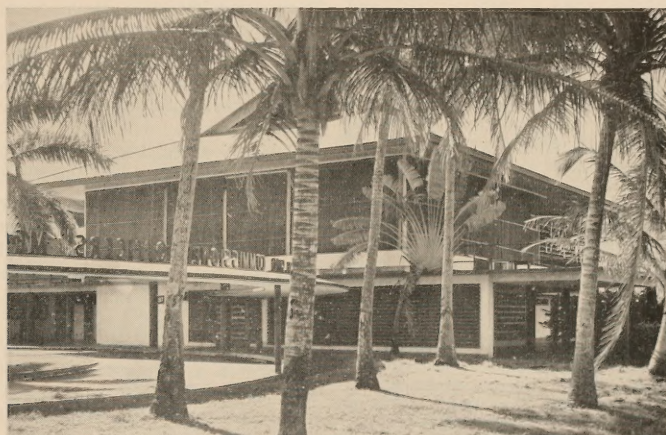
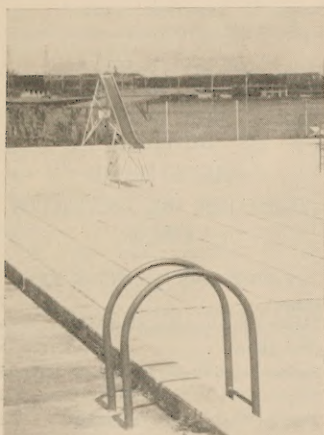
Swimming Pool



Palm Trees and Houses



Officer's Club



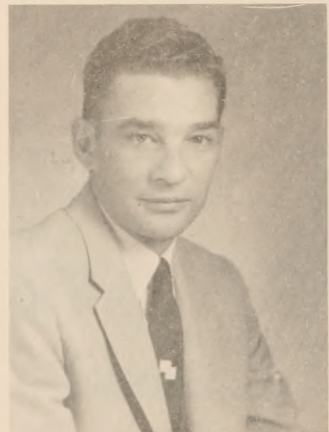
Two-Bedroom Apartments



The Commissary above, Hobby Shop below



Mutual Of Omaha Sends Representative To C. Z.; Status Of Zone Changed



I. D. ("Skeets") McCarty

The designation of the Canal Zone as a Division of the Home Office of Mutual of Omaha and the appointment of Ivan J. McCarty as Home Office Representative here, were made last month by the insurance company which underwrites group health insurance for Panama Canal Company-Canal Zone Government employees.

The Canal Zone became a Division of the Home Office on December 10. Mr. McCarty, who is familiarly known as "Skeets," arrived December 12 to take over his new post. An insurance man for the past 13 years, he had spent several weeks here earlier this year.

In his new capacity Mr. McCarty will service the important Company-Government Health Insurance group in the Canal Zone and will carry out Mutual of Omaha's objective in providing the best possible service to their policy holders.

He plans to spend certain days of the week on the Atlantic side where he will be available to answer queries and handle complaints. The days when he will be on the Atlantic side and the location of his office there, will be announced later.

Mr. McCarty will work closely with the Group Health Insurance Board, a group of employees which sponsors and administers the group health plan.

Model Of Miraflores Locks Sent To Florida Exposition

Visitors to the International Power Exposition being held this month in Florida can see in miniature one of the world's most famous installations operated by electricity—the Panama Canal's Miraflores Locks.

The small model was built in the Maintenance Division's shops in Balboa by Albert J. Deutsch, Machinist, who retired from Canal service last September and was engaged to construct the model.

The scale model of Miraflores Locks was built to study the feasibility of constructing a larger working model of the Locks in the near future.

Safety Zone

FOR YOUR INTEREST AND GUIDANCE IN ACCIDENT PREVENTION

PHYSIOLOGY

Very Shocking!

Alcoholics can be shocked more easily than other persons. So can persons with hardening of the arteries, those with disturbed thyroids, and those with greasy skin.

This is shown by a study on the effects of shocks by lightning and man-made electricity reported to the International College of Surgeons meeting in Chicago by Dr. G. Kenneth Lewis of the University of Illinois College of Medicine.

The effect of electrical shock on human beings is dependent on several factors. These include the type and amount of current, resistance set up in the body, path of the current, duration of the contact, conditions surrounding the accident, and the question of individual susceptibility.

Aside from death, electrical shock can have damaging effects upon the heart and nervous system, stimulate strong muscular contraction, inhibit the function of vital organs, destroy cells and vital tissue, and cause extensive, latent, dying-off of burned tissues or cells.

The study showed that accidental contact "with even 110 volts of electricity is often fatal if the victim is wet and well-grounded," Dr. Lewis reported.

It also showed that alternating current

is considerably more dangerous than direct current of like voltage and amperage.

Currents of low voltage follow a path of least resistance, but currents of high tension tend to flow along the shortest path.

"Injuries produced by electrical accidents are more dependent upon the path of the current than its intensity, and current passing through the left side of a victim's chest or brain can be more dangerous than that traversing the right side because of its damaging effect upon the heart," Dr. Lewis pointed out.

HONOR ROLL

Bureau Award For

BEST RECORD

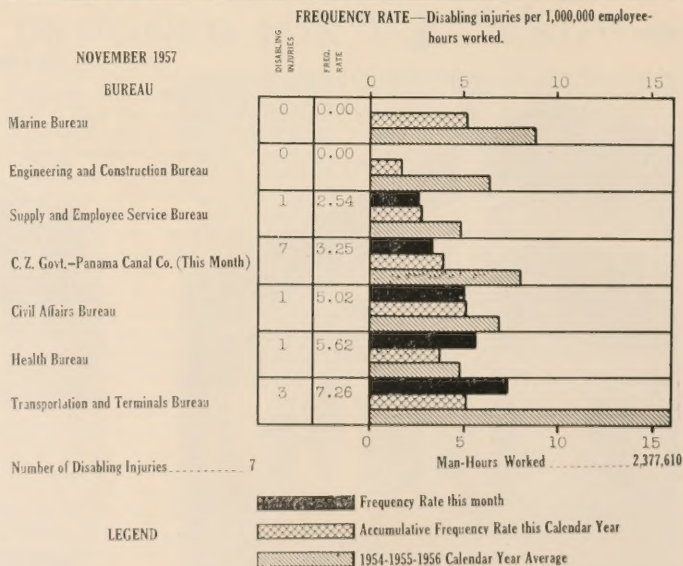
NOVEMBER

MARINE BUREAU

ENGINEERING AND CONSTRUCTION BUREAU

AWARDS THIS CALENDAR YEAR

Health	7
Engineering and Construction	6
Civil Affairs	6
Supply and Employee Service	5
Marine	2
Transportation and Terminals	1



South America

Its west coast was barred from world trade until Canal provided routes to its storehouse of natural resources

No major area of the civilized world was more effectively blocked from the great world trade centers before the Panama Canal was completed than the tier of South American countries facing the Pacific Ocean.

Geographically and topographically, the area was cut off from the rest of the world. The Andes formed an almost impenetrable barrier to the east and beyond them for the most part lay thousands of miles of trackless jungle.

To the north, the Isthmus of Panama lay across the logical and easiest sea-routes to the United States and Europe where the great industrial expansion of the modern age was taking place. This land barrier forced ships to sail or steam thousands of miles out of their course. This costly procedure was an effective brake on the economic development of Chile, Peru, Bolivia, Ecuador, and Colombia, the countries facing the Pacific or linked to it commercially.

The cost of goods shipped to these countries acted adversely on the economy of each nation and development capital was not attracted to an area

where a competitive position was not possible.

Added to these factors was the lack of adequate land communications—highway and railroad—which hampered trade between neighboring countries as well as internal commerce.

This area, with a 4,000-mile coastline, had double the size and population of the Pacific Coast States of California, Washington, and Oregon. But, in this great expanse there was only one transcontinental rail link—between Valparaiso and Buenos Aires—when the Panama Canal was opened. At that time the west coast of the United States was connected with the Atlantic seaboard by seven transcontinental railroads.

These nations constituted a vast land that was among the first colonized after the discovery of the New World. It was an area that had yielded fabulous treasures to its conquerors in the fifteenth century. Yet, 400 years later much of the land was unsettled and little past the middle ages in communications and economic development.

It was a land of great contrasts and anomalies. It had produced some of the world's great political leaders but the nations had been plagued with political turmoil, wars, and internecine strife. Its universities such as those at Lima, Cuzco, and Arequipa, were world renowned and some of the leading writers, artists, and philosophers were born there. In contrast, the illiteracy rate was high and the masses of the people were impoverished and uneducated.

There were great concentrations of wealth and dire poverty. The land itself was rich in natural resources but little was moved to world markets. The mountains were covered with fine timber but the lumber industry was not developed much beyond local requirements. Fertile valleys and plateaus lay dormant for lack of agricultural implements and transportation for produce.

It is small wonder that the forward thinkers of this area looked anxiously to the progress being made during the decade of the building of the Panama Canal by the United States Government from 1904 to 1914.

The general outlook of the area to be expected as a result of the opening of the Panama Canal in August 1914 was succinctly described shortly before the waterway was finished by Dr. Emory R.



EDITOR'S NOTE

For over 40 years the operation of the Panama Canal has been intimately linked with the economic development of many nations. These ties are closer and more pronounced with the New World nations facing the Pacific Ocean.

In this issue "The Review" begins a series of articles on the nations we serve. The series is intended to provide Canal employees with a better understanding of their role in this big world picture and to call attention of all readers to the Canal's importance in world trade and to the economic welfare of individual countries.

The first of these articles relates to those South American nations along the Pacific seaboard which comprise one of the world's great trade areas before the Canal was opened. Subsequent articles will deal with the countries individually as they are today.

Illustrations for the first article, including our cover picture, were obtained from the valuable collection on Latin America in the early part of this century in the Photographic Library of the Pan American Union in Washington, D. C. The assistance of the Library's personnel in making these striking pictures available is gratefully acknowledged.

Johnson in his comprehensive tolls study in which he described the trade potential of the Canal. In his report, Dr. Johnson said in part:

"The benefits of an isthmian waterway will be felt in varying degrees by more than half the countries of the world. In some regions this influence will be slight and indirect, or will modify only a small



Harbor and town of Tocopilla, Chile, are pushed against sea by the Andes.

part of the trade, while in others it will affect the great part of the commerce and will work changes that will be almost revolutionary. The United States will obtain the most direct and far-reaching results from the Canal; South America will probably be the second greatest recipient.

"The nineteenth century witnessed an enormous expansion of commerce throughout the greater part of the world, largely because industries developed in new countries by means of the capital that Europe had slowly accumulated through several preceding centuries.

"The capitalistic development of western South America, particularly the northern part, has, however, not yet progressed very far. It has great stores of natural wealth, but the obstacles in the way of their utilization have not been overcome. Large organizations of capital are especially necessary in the Andean region and on the west coast.

"The western part of South America has been lying idle, while more accessible resources have been levied upon. But a new era seems to be at hand. The con-

stant tendency everywhere is to organize capital on a large scale, and it seems probable that the development of western South America will be undertaken by organizations of capital similar to those that are giving the United States its industrial preeminence."

These prophetic words of this internationally-known economist were, if anything, more accurate than his nearly-exact predictions on future Canal traffic.

It is significant to note that while the Panama Canal has provided the sorely-needed avenue to world markets for the Pacific coast of South America, this area had been closely linked with the Isthmus of Panama from the time of its conquest and settlement. It was from Panama that Francisco Pizarro sailed to conquer the Incan Empire and later to spread the influence of Spain along the entire coast. During those early years, the Isthmus was the connecting link with the mother country, for only the hardiest of navigators cared to risk the stormy passage around Cape Horn in the sailing vessels of those days.

This use of the Isthmian trade route continued over the years on a somewhat spasmodic scale. By the turn of this century, however, this trade was inconsequential, and definite sea routes to the west coast, principally to Chile and Peru, had been established around the Horn by sailing ships, and through the rough waters of Magellan Strait by steamship lines.

These routes, however, were long, difficult, and costly.

As a result, even during the first decade of the twentieth century, sea-borne trade to the rest of the world was largely confined to those commodities which could withstand long shipment and of prime necessity.

The sailing vessel was still a major factor in sea transportation when the Canal was opened in 1914. The sea-borne trade of western South America handled by sailing ships was relatively much higher than that on other world trade routes principally for reasons of economy in operation and type of cargo handled.

The principal exports were nitrates, mineral ores, lumber, sugar, cotton, grain, and coal, while imports were confined largely to machinery, hardware, and manufactured articles that would withstand long shipment. Food and other perishables were not shipped to any appreciable extent.

All of these commodities could be shipped more economically by sailing vessels than by steamships. Consequently the advent of the steamship had not produced the same effect on Pacific trade to western Latin America as it had in the North Atlantic trade zone.

As a result of this, and the fact that sailing ships from Europe had a great advantage over those operating from the United States, the bulk of foreign trade of Chile, Ecuador, and Peru went to Europe until after the Canal was opened. The advantage of European trade routes was so decided that many commodities could be shipped cheaper to Europe and



Stately sailing ships crowded the harbor of Callao, Peru, in the early 1900's.



Sailing ships and steamers made Valparaiso harbor a busy port 50 years ago.

transhipped to or from the United States than they could be moved over direct sailing routes.

While the United States shippers had some advantage in steamship routes, the nation's merchant marine at that time was devoted almost wholly to the intercoastal trade and handled little foreign commerce.

There were many economic and other factors which had a decisive effect on the restraint of import and export trade of the Pacific coast nations before the Canal was opened.

The great trade disadvantages stemming from the fueling of vessels alone is well illustrated in some comparative figures on the operating costs of vessels around the Horn and through the Canal to South America compiled just before the Canal was opened.

These statistics showed that a 15-knot steamer could make only four trips a year around South America from New York to Valparaiso at an average trip-cost of \$82,000. It would burn 1,624 tons of coal a trip and the freight charges would be \$6.44 a ton. By going through the Canal the ship could make 8.9 round trips at a cost of about \$50,000 a trip, and charging a freight rate of only \$3.80 a ton. On this trip it would require only 509 tons of coal.

The statistics on the operation of steamers between Liverpool and Valparaiso were less impressive but on this route a ship could make an extra round trip a year and use half the amount of coal by going through the Canal. Freight charges were estimated at \$5.89 a ton as compared with \$7.05 a ton on a trip around the Horn.

The total foreign trade of the five nations along the Pacific just before the Canal was opened did not total a half-billion dollars. Today, Chile's foreign trade alone far exceeds this figure.

The following figures show the foreign trade of the individual countries in 1911:

	Imports Exports		Total
	<i>In millions of dollars</i>		
Chile.....	\$127	\$124	\$251
Bolivia.....	23	32	55
Peru.....	31	36	67
Ecuador.....	8	14	22
Colombia.....	18	22	40
Totals.....	\$207	\$228	\$435

The industrial and economic development of Chile was far more advanced in the early 1900's than that of most other Latin American countries. The nation had 21,000 miles of public roads and about 3,500 miles of railways, about half of which were operated primarily for mining interests. While Chile had more highways and railways than all other Latin American countries bordering the Pacific all the way up to Mexico, they were not integrated into systems which could serve the national interests as a whole.

Because of the trade which had been built up by sailing ships with Chile during the nineteenth century, most of her foreign commerce went to England and Germany. Nitrate shipments amounted to almost 75 percent of her exports. Other principal exports were gold, silver, cobalt, copper, lead, vanadium, coal, and manganese, with agricultural and forest products comprising only about one-eighth of the total.

Chile's foreign trade was carried mostly by foreign vessels which were also per-

While reliable statistics of the five countries a half century ago are not possible to obtain in all categories, some of the general features of each nation, particularly as to their economic outlook early in the 20th century, are briefly outlined below by individual countries.

Pressed between the towering walls of the Andes Mountains and the Pacific Ocean, this long, thin land appears as only a ribbon on the map of South America.

It has a coastline stretching 2,650 miles between the Antarctic Circle and the Equator. At no point is the country wider than 250 miles.

An official estimate of its population early in this century was 3,174,000, as compared with a present-day population of 7,100,000. About half of its population then lived in rural districts. The populations of five of its principal cities were then listed as follows: Santiago, 332,000; Valparaiso, 142,000; Concepción, 49,000; Iquique, 43,000; and Antofagasta, 16,000. Its capital city of Santiago is today a great metropolis with a population of over 1,400,000—more than a third of that of the entire nation of a half century ago.



Loading cattle at Callao, Peru.

Coquimboa, Chile, had a fine harbor but inadequate port facilities.





Port operations have changed drastically in 50 years at Guayaquil, Ecuador.

mitted to operate in her intercoastal trade.

Peru has a seacoast of 1,240 miles long with many fine, natural harbors. The country, from 300 to 400 miles wide, is divided longitudinally into the coastland, sierras, and montañas. The coast is largely sandy deserts crossed at intervals by rivers flowing through narrow, fertile valleys. The sierra of the Andes is about 250 miles wide, while the "montaña" region is covered with tropical forests which slope down to the Amazon basin.

In the early 1900's the country's population numbered about 3,500,000 and was principally rural. The population of some of its principal cities then were: Lima, 140,000; Callao, 31,000; Arequipa, 28,000; and Iquitos, 6,000.

Of Peru's economic development, the Encyclopedia Britannica said in its 1911 edition: "Owing to political disorders, difficulty in land communications, and the inheritance of unsound fiscal methods from Spanish colonial administration, the commercial development of Peru has been slow and erratic."

At that time, Peru, one of the richest nations in the world in mineral resources, exported more sugar than any other product, with mining products ranking second. Other exports included cotton, cocaine, hides, rubber, and other forest products, wool, and guano. The largest part of her foreign trade went to Great Britain, with Chile ranking second, and the United States third.

Internal transportation was largely water-borne over the many navigable rivers and Lake Titicaca. Some trade to the Atlantic found its way down a branch of the Amazon from Iquitos.

Bolivia, with an area of over 600,000 square miles, had an estimated population of 1,750,000 in the early 1900's, of which over 900,000 were Indians who contributed but little to the economic welfare. La Paz, its principal city, had a population of about 55,000, while the cities of Cochabamba, Potosi, and Sucre each had populations of slightly over 20,000.

The agricultural resources of the country were varied and of great value but their development up to that time had been slow. The principal exports then were tin, copper, bismuth, rubber, and quinine bark.

The Republic, being land-locked, shipped its foreign export goods principally through the ports of Chile and Peru. At one time, Bolivia had a commercial outlet to the Atlantic down the Acre River and small ocean steamers plied between Puerto Acre and Para. However, Brazil had closed the port to foreign commerce and later took over Puerto Acre and the surrounding territory, leaving the Maderia River as Bolivia's only outlet to the Amazon River system. This was unsatisfactory and little used, however, as high falls interrupted river transportation near the country's border.

The lack of internal transportation, except by mulepack and riverboats had all but barred any industrial development in Ecuador.

Ecuador The first railway, 290 miles long, connecting Quito and Guayaquil, was completed in 1908 by an American company. At that time there was only one road usable by wheeled vehicles. This was one 115 miles southward from Quito toward Guayaquil but it had been permitted to fall into such a state of complete disrepair that only short sections were usable.

Ecuador had an estimated population early in this century of about 1,500,000; but this, at best, only a reasonable guess because of the lack of internal communications. Quito was then a city of 80,000, while the chief port of Guayaquil had 60,000 inhabitants.

Although the mineral resources were known to be much inferior to those of Colombia and Peru, mining had been one of Ecuador's chief sources of revenues from the time of the Spanish conquerors. The emerald mines of the Province of Esmeraldas had been worked from the time of the conquest, and over the years various mining companies had operated iron, lead, and platinum mines.

Manufacturing industries were chiefly of a primitive character, developed to meet local needs. While some modern machinery had been imported to make cotton fabrics and mill sugar, most cotton and wool manufactures were by primitive means. One of Ecuador's principal export items then, as now, was Panama hats.

"The Pacific coast has been of slight service in the development of Colombia because of the unsettled and unhealthy character of the coast region, and the high mountain barriers between its natural ports and the settled parts of the country." Thus, one writer described Colombia's Pacific area with a 700-mile seafrontage just before the Panama Canal was opened.

Colombia Colombia had an estimated population of 4,300,000 at this period, and Bogota was a city of 120,000 inhabitants. The country's principal outlets to foreign trade were on the Atlantic seaboard and Barranquilla then had a population of 40,000.

The port of Buenaventura was the chief outlet on the Pacific but there was little trade. The port was a town of about 1,200 inhabitants and there was little commercial activity. The estuary on which Buenaventura is located was deep enough for ocean-going steamers and it was a port of call for a German and a British steamship line. While this was the outlet for the Cauca Valley, that area had not been developed into what it is today—one of the world's greatest and most fertile agricultural districts, and the city of Cali, now a metropolis of South America, then had a population of 16,000.

The vast change in the economic picture of these five great republics within the last half century is boldly painted in statistics of the Panama Canal today.

During the fiscal year 1957, ended last June, 12,799,000 long tons of cargo were shipped through the Canal to or from the west coast of South America. This represented 25.8 percent of the total of 49,702,000 tons of cargo moved through the Canal for that year.

In later issues, of THE REVIEW, a more detailed account will be presented on each of these Pacific Coast nations with statistics reflecting the direct relation the Panama Canal has had in their economic development.

Old Timer—



W. J. Wright, construction day veteran, is nearing the century mark. A resident of Boquete for many years, he makes his home with a son in Texas.

OF CURRENT AND FUTURE INTEREST



Two employees of the Comptroller's Office have been selected to attend the U. S. Civil Service management training course which starts this month. Left to right: W. A. Wichmann, Accounting Policies and Procedures, Internal Audit Branch; and J. B. DeVore, Accounting Division, alternate.

The safety deposit box facilities operated by the Treasurer in the basement vault of the Administration Building are now open to the public for two hours each working-day, Monday through Friday, from 10 a. m. to 12 noon, according to an announcement by the Comptroller. The facilities will also be available intermittently at other times when the Vault Clerk may be in the vault performing other duties. Otherwise, the vault and boxes will not be accessible except by prior arrangement with the Treasurer, telephone 2-2532 or 2-2526.

Before yesterday the vault was regularly open to the public for only one hour a day, from 11 a. m. to 12 noon.

At the same time, the Comptroller announced that payment of Panama Canal Company and Canal Zone Government bills may be made to the Vault Clerk during times that the vault is open. This new service will provide a convenience to the large group of employees in the Administration Building, as well as to others coming to the Building.

Higher octane gasoline is soon to be on sale at the Canal service stations at no increase in price, according to an announcement at the Supply and Community Service Bureau.

The Canal's gasoline supply is bought on open bidding about twice a year and the

new supply was bought from the Asiatic Petroleum Company. The order is for 70,000 barrels of regular, and 45,000 barrels of premium gas.

The new regular gas will have an octane rating of 87, as compared with 82 for regular now on sale. The octane rating of premium gas will be 96 instead of the present 93 rating. The entire supply will be brought on the same tanker which is expected to make delivery about the end of this month. The new gas will be on sale at service stations soon after delivery.

A handsome new volume was added to the Panama Collection of the Canal Zone Library last month with the arrival of a catalogue of Pre-Columbian Art prepared with the assistance of Dr. Samuel K. Lothrop, well-known anthropologist. The book, which describes the Robert Woods Bliss collection now on loan to the National Gallery of Art, was presented to the Library by Mr. Bliss, a former diplomat and a well-known collector. Beautifully illustrated with color pictures, the catalogue is being kept in the Library for reference use.

Bids for the air-conditioning and modernization of the Administration Building at Balboa Heights, were advertised the last week in December and bids are presently scheduled to be opened on or about February 17.

The work included in these contracts will consist of completely air conditioning the Administration Building, the installation of a new power feeder, replacement of lighting and wiring, installation of suspended ceilings, replacement of the elevator, and miscellaneous other alterations and improvements.

Plans are now being made to convert the old Paint and Rigging Shop in the Cristobal Industrial Division area into a modern office building to house the main offices of the Panama Canal Industrial Division.

The specifications call for the installation of vinyl-tile flooring, suspended acoustical tile ceilings, fluorescent lighting, and aluminum-type windows. The new office space, which will measure 100 by 81 feet, will include a fireproof vault, a conference room, and a private office for the Chief of the Industrial Division.

The main office of this division has been located since 1950 in a "temporary" structure built by the U. S. Navy during World War II. This building will be torn down

after the Industrial Division offices move to their new quarters. The paint and rigging operations will be moved to the old wood assembly shop which will be converted for this purpose.

Bids on the Industrial Division office work are scheduled to be advertised January 27.

Full-time optometrical services are now being provided at Coco Solo Hospital by Robert L. Ronollo, a graduate of the Pennsylvania State College of Optometry, it has been announced by the Health Bureau.

A native of Camden, N. J., he also attended Franklin and Marshall College in Lancaster, Pa. He completed his studies in optometry this year and is a member of the American Optometric Association, the Pennsylvania Optometric Association, and is a licensed optometrist for the States of New Jersey and Pennsylvania.

No stranger to the Isthmus, he visited Panama in 1956 and for a time was Honorary Vice Consul for Panama in Philadelphia.



James F. Magary

The first psychologist to be employed by the Canal Zone schools is due here January 13 aboard the SS *Cristobal*. He is James F. Magary, who comes to the Isthmus from the Devereux Schools in Devon, Pa.

Mr. Magary will be assigned to the Special Education office of the Schools Division. Although his service will be available to all Zone students, he will work primarily on psychological tests determining placement in special rooms of children who are having difficulty in school or who need special attention.

Born in St. Clair, Mich., Mr. Magary did his undergraduate work at the University of Michigan and holds a master's degree from Wayne University. He is completing work on a doctorate in psychology at Indiana University. He reads, writes, and speaks Spanish.

His experience includes two summers' work with disturbed boys at the University of Michigan's fresh air camp Institute in Human Behavior, and teaching while he was doing his graduate work.



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CIVIL DEFENSE
NEWS

JANUARY VOLUNTEER CORPS MEETINGS

Date	Town	Place	Hour
8	Rainbow City	School	6:30 p. m.
9	Santa Cruz	Service Center	8 p. m.
20	Paraiso	School	7:30 p. m.

(Dates for other town meetings were not ready as this issue of "The Review" went to Press.)

Want To Know About The Antarctic?

Young Zonian tells what it's like when the temperature is minus 78 degrees

Clifton Hayward's temperature has gone up 168 degrees in the past few months. That's not strictly correct; it would be better to say that the temperature of his surroundings has varied that much.

Not long ago he was wearing a parka and all of the other cold-weather clothing the United States Navy could provide; the temperature was a chilly 78° below zero. Today, back on the Isthmus after 14 months in Little America, he is running around in a sport shirt and reacting just as everyone else does to temperatures of 90°—above zero, this time.

The son of Mr. and Mrs. Alton J. Hayward of Margarita, and a former Panama Canal apprentice boatbuilder, Clifton returned to the Canal Zone a week before Christmas following his discharge from the Navy.

The palm trees and the green grass, the blossoming poinsettias and hibiscus are a far cry from the white vastness of the Antarctic, he finds.

In 1953, young Clifton Hayward, who had graduated from Cristobal High School the previous year and started his apprenticeship, decided to join the Navy. He took his boot training at Bainbridge, Md., served at Port Hueneme, Calif., and for a little less than a year with the Public Works Office in San Juan, Puerto Rico. Then he heard of the Navy's Operation Deepfreeze I and decided to volunteer for Antarctic service.

Six months of extensive training—at Davisville, R. I., at Thule in Greenland, and at a Caterpillar diesel plant in Illinois—preceded his departure for the southernmost part of the globe. In November 1955, he had a last look at his Canal Zone home when his ship, the USS *Arneb* went through the Canal.

A few weeks later the *Arneb* was nosing its way through the ice behind the USS *Glacier* toward the camp to be established at Little America.

Unloading of the Navy equipment began at once. Time was precious and the temperature only 5° below zero. The daylight of the Antarctic summer was 24 hours long, as bright at midnight as it was at noon, and the men from the *Arneb* worked as long at a time as they could without sleep. Frequently, work hours



Even the summer temperature was well below zero in Little America.

were an unbroken 24 hours and once, he recalls, he worked 36 hours at one stretch.

The Little America base was not exactly at the same location as the earlier bases, some of which had been covered by years of snowfall. The new base had to be built from scratch. First to go up were the prefabricated huts, each of which housed 20 men. When the first men moved ashore from the ship, the buildings were unlighted and heated only by kerosene stoves. Sleeping bags took the place of bunks. Later, as time allowed, came the little "niceties"—the partitions which divided the huts into cubicles, and the bunks with their innerspring mattresses.

In February, the Antarctic summer began to draw to a close. The ships pulled out, leaving 72 men on the ice shelf at Little America and another 70 at McMurdo Sound, 350 miles away.

The Base settled into a daily routine. Work-days of eight hours were established and everyone turned to to get things ready for the expeditions which would start out in the spring to construct a base at Marie Byrd Land. Most of the work was done inside the buildings, but on a "balmy day"—one on which the temperature got up to 15° below zero—some of them were able to get things done outside.

All of the men doubled up on their job. Clifton Hayward was classed as a builder, second class, but his secondary job was that of Base tailor. Clothes, he said, had to be mended and kept in repair; there was no department store handily nearby to provide replacements.

The days were busy and went fast. Living, under the circumstances, was comfortable. The best food he ever ate in the Navy, the young Zonian says, was served family style at tables seating eight men each. Places were set with plates and silverware and, while there were no tablecloths, there were no mess kits either. The men got double rations of all sorts of high calorie, heat- and energy-producing food.

Off duty the men gathered in a big recreation hut where they had a library, post office, barber shop, and movie thea-

ter. They had with them 180 movie films; when they had seen all of them, they repeated the best ones.

They were not able, of course, to receive or send mail but they kept in touch with their families through "ham" radio operators. Their prime contact was a man named Newton Kraus of Rhode Island, who was in almost constant contact with Little America. At Christmas time, a Syracuse, N. Y. group of amateur radio operators known as RAGS, took messages from the men and purchased, addressed, and mailed five Christmas cards for each man at the Base.

Spring came the end of August and the men at Little America began to dig out from under 18 feet or so of snow the supplies which had been dumped around the Base when the ships pulled out six months before. Some of the dumps were marked with red flags on bamboo poles which had been brought from the Canal Zone.

By December, summer had come and the trail parties started to go out. Young Hayward was the only builder who stayed behind. His job was to keep the parties supplied from the main base. This meant plane trips from time to time. He made flights from Little America to Marie Byrd Land, and from Little America to McMurdo Sound. But the most exciting of the plane trips were four runs over the South Pole for air-drops of supplies to the group there.

Fortunately, he was not caught in a "whiteout" on any of the flights. But he did experience one of these Antarctic phenomena once at Little America. There was no snow falling, he says, and there was no wind. But suddenly the entire atmosphere became an opaque white. He could barely see his dark glove at the end of his extended arm. There was nothing to do but wait it out. His whiteout disappeared within a few minutes. They have been known to last for hours.

The end of the second Antarctic summer, last February, and the end of his Little America service came at the same time.



Clifton A. Hayward

Gorgas Blood Bank Ends First Year With Plus Balance

A plus balance of 140 pints was credited to the Pacific Side Blood Bank at the close of the bank's first year of operation, according to figures compiled early in December at Balboa Heights.

The blood bank, formally known as The Pacific Side Blood Replenishment Program operation, is strictly a volunteer program. A similar blood bank is now being set up on the Atlantic side and should be in operation early this month. Under the blood bank program, no Company-Government employee, or member of his family, is charged for blood taken from the bank.

The program on the Pacific side got under way on November 23, 1956. Its headquarters are at Gorgas Hospital. The first annual report for the operation shows that all Company-Government bureaus, except one, have a plus balance for the first year of operation. The Army, Navy, and Air Force, which have donated a total of 505 pints of blood during the year, had a surplus on hand of 95 pints on November 22, closing date for the annual report.

Under the blood replenishment program, employees register as prospective donors in their respective bureaus. They are then called upon if a fellow employee, or member of his family, requires blood. Occasionally more blood is supplied than needed, and the Division or Bureau involved is then credited with the surplus. The Housing and Grounds Division, for instance, has supplied 35 pints of blood, but only 14 of these have been used, leaving the Division with a credit of 21 pints for some possible future use.

In special cases, such as when donors cannot supply specific blood types, the Bureaus have an informal reciprocal agreement. The donating Bureau is credited when this happens.

New employees, or others who have not registered as donors and who wish to give blood should see their unit, branch, or division representatives as to the procedure to be followed for participation in the blood program.

Barlow Now A Consultant For St. Lawrence Seaway

Edward "Barney" Barlow might well be said to have canal water in the blood.

After locking thousands of ships through the Panama Canal as control-house operator and supervisor at Miraflores Locks, he retired a year ago with over 40 years of service. During that time he also told tens of thousands of visitors to the Canal Zone how the Canal operates both as a Canal employee and as a tour director in his spare time.

A year of retirement without a canal to operate and no tourist to enchant was enough. Last month Barney accepted a job as Consultant with the St. Lawrence Seaway Corporation in Massena, N. Y. News of his new job has just been received by friends in the Canal Zone.



50 Years Ago

An important decision—the width of the Canal locks—was made 50 years ago in January. With a width of 110 feet approved by President Theodore Roosevelt January 15, and work already started on relocation of the Pacific locks three miles inland (to their present site), the Canal builders were finally ready to swing into concentrated action.

Although the 10-foot increase in width would add about \$5,000,000 to construction costs, it was in keeping with the wishes of the Navy which had held that 100-foot locks would not accommodate its future vessels. No one, 50 years ago, of course, had ever considered canted flight-decks! The day after the President approved the wider Canal locks, Secretary of War William H. Taft, went before the Senate Committee on Inter-oceanic Canals, testified that the waterway would be completed six years from the following July, and that its ultimate cost would be approximately \$300,000,000, including the purchase price.

On the Isthmus, work was proceeding at a dizzy pace. In January 1908, excavation totaled 2,712,568 cubic yards, the first time that the 2,500,000-mark had been reached. And the labor force was rising. "Small shipments" of men came from Spain and Barbados, THE CANAL RECORD reported, and a number of laborers were recruited from the United States.

At Ancon, the new Administration Building, now the District Courthouse, was completed and beginning to fill up. It housed the offices of the head of the Department of Civil Administration, the Division of Posts, Customs and Revenues, the Department of Sanitation, and the Secretary of the Isthmian Canal Commission.

Work started on a permanent Canal Zone Quarantine Station on Culebra Island, now one of the "Fortified Islands" group. The Station was to consist of 10 buildings, two of which were to be isolation wards for suspected cases of infectious or contagious diseases.

At a meeting, January 30, 1908, the Isthmian Canal Commission decided that any radical change in the commissaries "would imperil the future success of the work and the welfare of all classes of employees." The Commission, accordingly, declined Panama's demand for restriction of commissary privileges, the demand for restoration of a bi-monthly pay-day, and a demand for discontinuance of the coupon-book system.

25 Years Ago

Traffic through the Panama Canal again slumped downward 25 years ago last month, after several months of a slow but steady rise. In January 1933, commercial transits totaled 415 ships, 16 lower than for the previous month.

The sudden death of former President Calvin Coolidge, at his Massachusetts home brought Canal Zone flags to the half-mast for 30 days.

Zonians who had begun to feel the

pinch of the Government's economy were regained some hope when labor leaders reported that a Senate subcommittee had recommended restoration of leave privileges for Canal-Railroad employees, except for a month's furlough. On the other hand, they learned that Congress had in mind an additional 1½ percent pay cut for Government employees.

January, 25 years ago, brought two special visitors to the Canal Zone, both of them former members of the Isthmian Canal Commission. First to arrive was Rep. Maurice H. Thatcher. His stay included a trip up the new highway which bears his name, and on into the Interior of Panama. The second visitor was Gen. William L. Sibert, who had headed the Atlantic Division during the construction period.

10 Years Ago

Repercussions from Panama's rejection of the defense sites pact were still being heard 10 years ago this month. Senator William F. Knowland, of California, introduced a bill before Congress to give the administration "full authority to enter into a supplementary treaty with Nicaragua and go ahead with canal construction" there.

And in the House of Representatives, Rep. Willis Bradley, another Californian, presented a bill calling for an Inter-oceanic Canals Commission to study the Panama Canal and determine whether additional canals were needed to safeguard the interests of the United States.

An acute shortage of tanker transportation and petroleum products in the United States was felt in the Canal Zone, in January 1933. Local oil companies began a voluntary rationing system with many of their clients.

The trip of Rep. J. Parnell Thomas, of the House Un-American Activities Committee, to investigate communist infiltration in the Canal Zone was upset by an acute illness. After he became seriously ill aboard the "Ancon," en route to the Canal Zone, he was taken from the ship directly to Margarita Hospital where he remained during his entire stay here.

Several construction projects and one move were under way. Canal officials announced a \$910,000 program to build masonry quarters in Diablo Heights, Margarita, Paraiso, Camp Coiner, and Silver City, and began evacuation of three old houses to make room for the new obstetrical building at Gorgas Hospital. They also confirmed plans to close Margarita Hospital July 1 and consolidate all Atlantic side patients in Colon Hospital.

One Year Ago

From a vantage point at the old site of Culebra, the Panama Canal Company's Board of Directors got a look at the busy Canal below, and then came down to water level to transit the Cut and look over operations at closer range. The occasion was the annual meeting of the Board. One of its results was formation of a special committee, headed by the Governor, to study capacity problems.

PROMOTIONS AND TRANSFERS

November 15 through December 15

Employees who were promoted or transferred between November 15 and December 15 are listed below. Within-grade promotions are not reported.

CIVIL AFFAIRS BUREAU

Mrs. Edith M. Mathieson, from Clerk-Stenographer to Clerk, Customs Division.
Edward L. Stern, from Substitute Window Clerk to Window Clerk, Postal Division.

Louis H. Charles, Jr., from Substitute Distribution Clerk to Window Clerk, Postal Division.

Joseph M. Corrigan, from Clerk, Housing and Grounds Division, to Substitute Distribution Clerk, Postal Division.

OFFICE OF THE COMPTROLLER

Nellie F. Holgerson, from Clerk, Maintenance Division, to Accounting Assistant, Accounting Policies and Procedures Staff.

Charles W. Balser, from Property and Supply Clerk to Supervisory Accounting Clerk, Accounting Division.

Gertrude M. Milloy, from Supervisory Accounting Clerk to Accounting Clerk, Accounting Division.

Mrs. Irene L. Veno, from Clerk-Typist to Property and Supply Clerk, Accounting Division.

Mrs. Dorothea F. McNall, from Mail Clerk, Comptroller's Office, to Time, Leave, and Payroll Clerk, Payroll Branch.

Mrs. Nell J. Waldron, from Accounting Clerk to General Accounting Clerk, Agents Accounts Branch.

ENGINEERING AND CONSTRUCTION BUREAU

Mrs. Rosemary D. Reardon, from Clerk-Stenographer, Magistrate's Courts, to Clerk, Maintenance Division.

James W. Shobe, from Telephone Installer-Maintainer to Automatic Telephone Communication Equipment Maintainer, Electrical Division.

Joseph M. Watson, Supervisory Administrative Assistant, from Maintenance Division to Engineering Division.

John J. Kolenda, from Telephone Installer-Maintainer to Automatic Telephone Communication Equipment Maintainer, Electrical Division.

Mrs. Mary E. Specht, from Supervisory Clerical Assistant to Supervisory Administrative Assistant, Maintenance Division.

OFFICE OF THE GOVERNOR-PRESIDENT

Mrs. Berta I. Quinn, from Clerk to General Investigator, Internal Security Office.

Duane D. Anderson, from Security Assistant to Industrial Security Specialist, Internal Security Office.

HEALTH BUREAU

Jessie Mark, from Staff Nurse to Head Nurse, Coco Solo Hospital.

MARINE BUREAU

Edmund Dantes, from Deckhand to Signalman, Navigation Division.

Esteban Nifo and Felipe Cruz, from Deckhand to Signalman, Navigation Division.

Herman R. Wakem, from Towing Locomotive Operator to Rigger, Locks Division.

Edward B. Frampton, from Towing Locomotive Operator to Steam Locomotive Crane Engineer, Locks Division.

Jordan E. Walbridge, from Firefighter, Fire Division, to Sheetmetal Worker, Industrial Division.

James E. Stuart, from Property and Supply Clerk, Dredging Division, to Supervisory Storekeeper, Locks Division.

Robert C. Hurdle, Locks Security Guard, from Atlantic Locks to Pacific Locks.

John B. Willis, from Towing Locomotive Operator to Steam Locomotive Crane Engineer, Locks Division.

Robert D. Lawrence, from Apprentice-Machinist to Marine Machinist, Marine Bureau.

Max R. Hart, Safety Inspector, from Supply and Employee Service Bureau to Locks Division.

Richard E. Parker and Rufus H. Burnette, from Towing Locomotive Operator to Steam Locomotive Crane Engineer, Locks Division.

Gilbert H. Davis and Frank W. Van Horne, from Locks Operator to Foreman Locks Operator, Locks Division.

Kenneth E. Marcy, from Lock Operator

to Lead Foreman Carpenter, Locks Division.

Mrs. Elizabeth P. Gerhardt, from Clerk-Stenographer, Personnel Bureau to Clerk, Navigation Division.

William Gillespie and Wilbur H. Vantine, from Towboat Master to Pilot-in-Training, Navigation Division.

PERSONNEL BUREAU

Mrs. Dorothy W. Webb, from Personnel Clerk to Appointment Clerk, Employment and Utilization Division.

SUPPLY AND EMPLOYEE SERVICE BUREAU

James F. Reccia, from Locks Security Patrolman, Locks Division, to Stockman Foreman, Supply Division.

Mrs. Margarita F. Preciado, from Clerk-Stenographer, Supply Division, to File Clerk, Office of General Manager.

Mrs. Elizabeth S. Coleman, from Accounting Clerk, Accounting Division to Accounting Assistant, Supply Division.

Alva H. Cooke, Safety Inspector, from Engineering and Construction Bureau to Supply and Employee Service Bureau.

TRANSPORTATION AND TERMINALS BUREAU

J. Paul Bamberg, from Plant Electrician, Maintenance Division, to Locomotive Electrician, Railroad Division.

Mrs. Isabel P. Reeves, from Supervisory Cargo Clerk to Supervisory Cargo Assistant, Terminals Division.

Walter N. Hobby and William R. Dixon, from Motor Transportation Foreman to Lead Foreman, Transportation Equipment Operations.

Robert B. McIlvaine, from Supervisory Storekeeper, Locks Division, to Supervisory Cargo Assistant, Terminals Division.

Fred W. Sapp, from Window Clerk, Postal Division, to Supervisory Cargo Clerk, Terminals Division.

OTHER PROMOTIONS

Mrs. Ernestine W. Williamson, Staff Nurse, Coco Solo Hospital.

Mrs. Winifred M. Stegmann, Staff Nurse, Coco Solo Hospital.

Margaret M. Olms, Staff Nurse, Coco Solo Hospital.

Mrs. Katherine T. Northcott, Staff Nurse, Coco Solo Hospital.

Mrs. Judith A. Kitchens, Staff Nurse, Coco Solo Hospital.

Robert S. Jeffrey, Training Officer, Personnel Bureau.

Mrs. Anna M. Pruitt, Position Classifier, Wage and Classification Division.

Thomas C. Peterson, Personnel Assistant, Employment and Utilization Division.

Edward N. Appin, Time, Leave, and Payroll Clerk, Payroll Branch.

Mrs. Helen R. Hobbs, Time, Leave, and Payroll Clerk, Payroll Branch.

Mrs. Helen T. Kat, Time, Leave, and Payroll Clerk, Payroll Branch.

Mrs. Esther M. Oberholtzer, Staff Nurse, Coco Solo Hospital.

Mrs. Mariam M. White, Supervisory Procurement Clerk, Office of General Manager, Supply Division.

JANUARY SAILINGS

FROM CRISTOBAL

Ancon.....January 4
Cristobal.....January 15
Ancon.....January 22

FROM NEW YORK

Cristobal.....January 7
Ancon.....January 14
Cristobal.....January 24
Ancon.....January 31

Southbound ships which leave New York Friday are in Haiti the following Tuesday. Those which sail from New York Tuesday spend Saturday in Haiti.

Northbound, the ships stop in Haiti two days after clearing Cristobal: Monday for those which sail from Cristobal Saturday, and Friday for those which clear Cristobal Wednesday.

ANNIVERSARIES

Arthur Morgan, Dipper Dredge Operator on the *Cascadas*, senior U. S. employee from point of service in the entire Canal organization, completed 45 years of service on December 16. This entire period has been with the Dredging Division.

During the past 45 years, Mr. Morgan has worked on just about every type of floating equipment the Dredging Division possesses. The only floating craft he has missed have been towboats.

Born in Indiana, he came to the Canal Zone in December 1912, to join his older brother, Robert, who had been working here for four years as a machinist.

Arthur Morgan's first job was that of water tender. Within a short time he was working on old Dredge 85, out of Balboa. He has been an engineer on drill boats and suction dredges, a mate on all sorts of Dredging Division floating craft and, since 1923, an operator on a dipper dredge.

35 YEARS

Although nearly half of his 35 years of Government service has been with U. S. Post Office Department in the United States, Donald R. Boyer, Relief Supervisor with the Postal Division in Balboa, feels like an oldtimer with the Canal organization.

Since he first joined the Canal Zone Postal Division in 1939, he has worked in nearly every post office in the Canal Zone and now, as Relief Supervisor on the Pacific side, works in various post offices while the regular postmasters are on leave.

Mr. Boyer, who was the only employee to complete 35 years of Government service in December, is a native of Sioux City, Iowa, and was employed in the post office in Bellingham, Wash. for 17 years before coming to the Canal Zone. He was postmaster at Cocoli, Fort Davis, and Gatun before being made Relief Supervisor in Cristobal in 1955. He was transferred to the Pacific side last November.

Mr. and Mrs. Boyer live in Diablo and during weekends they usually can be found fishing off the coast of Panama in their 26-foot fishing boat. They have a son Robert and a daughter, Mrs. Barbara Ramey, both of whom live in the Canal Zone.

30 YEARS

Of the five men who completed 30 years of Government Service in December, three are second-generation Canal employees. They are John P. Corrigan, Jr., Foreman Stevedore in the Terminals Division; Dave J. Madison, Machinist in the Industrial Division; and William M. Sergeant, Supervisory Contract Specialist in the Contract and Inspection Division.

Mr. Corrigan was born in the Canal Zone and is a member of a large Canal Zone family. He took his first job with the Canal in 1925 as a "boy" in the Marine Bureau and afterwards was employed in several other Canal units including the Police Division and the Mechanical Division. Since 1950 he has been Foreman Stevedore in the Terminals Division.

Born in Morton, Miss., Mr. Madison came to the Canal Zone with his family and was employed as a helper with the Panama Railroad in 1917. He held several student jobs, became a machinist in the Mechanical Division in 1924, and left the service the following year. He was reemployed as a machinist in 1939 and has held this position ever since.

Mr. Sergeant was born in Cuba and also came to the Zone with his family. He also took a series of summer jobs and in 1929 was employed as a Survey or in the Section of Surveys. He was an engineer on the Madden Dam project in 1934, and an Assistant Engineer in the Special Engineering Division in 1939. He then spent four and one-half years on active duty with the U. S. Navy during the Second World War and was reemployed with the Canal in 1946 as an engineer with the Third Locks Project. Since 1950, he has been with the Contract and Inspection Division.

The other two employees completing 30 years of Government service in December spent a number of years with the U. S. Army before joining the Canal organization. They are William G. Monroe, Sergeant in

the Locks Security Branch; and **Philip Schneider**, a marine machinist in the Industrial Division. Mr. Monroe was born in Dickson, Tenn., and served 20 years with the U. S. Army before being employed in 1948 by the Mechanical Division as a guard. He has been with the Locks Division since 1953. Mr. Schneider was born in Zegram, Austria, is a naturalized U. S. citizen, and served 13 years with the U. S. Army. He was employed in 1940 as a foreman in the Maintenance Division, was transferred in 1944 to the Mechanical Division as a machinist, and has been with the Industrial Division since 1950.

25 YEARS

A quarter of a century of Government Service was rounded out in December by three employees of the Canal organization. **Nathan Fleckner**, Plant Accounting Assistant in the Plant Accounting Branch, was the only one to have continuous Canal service. Born in New York, he was employed as a clerk in the Record Bureau in 1937 and was transferred in that same position in the Maintenance Division in 1939. He has been with the Office of the Comptroller since 1941.

The two other employees who celebrated silver anniversaries last month were **Earl O. Dailey**, Pacific Side Area Engineer for the Power Conversion Project, and **Howard L. Sampsell**, Foreman Locks Operator in the Locks Division. Mr. Dailey, a second-generation Canal employee, was born in Rogen, Colo., and came to the Canal Zone with his family. He held student jobs as a boy and joined the Electrical Division in 1936 as a wireman engineer. He was Supervisor of the Electric Work Branch in Balboa from 1950 until 1955 when he was transferred to the Power Conversion Project as Area Engineer. He was first stationed on the Atlantic side and recently was transferred to Balboa as Pacific Area Engineer.

Mr. Sampsell is a native of Philadelphia and first worked for the Canal in 1925. He resigned after a year and was reemployed in 1935 as a wireman in the Electrical Division. He has been with the Locks Division since 1936.

20 YEARS

Only three of the nine employees who passed their twentieth year of Government service in December had unbroken service with the Canal organization. They are **Richard G. Dinkgreve**, of New Orleans, who is Office Services Supervisor in the Electrical Division; **Louis F. Harris**, born in Bowling Green, Mo., and now a sergeant in the Locks Security Patrol, and **Miss Winnifred E. Seeley**, a former Canadian, who is a head nurse at Gorgas Hospital.

Those with broken Canal service are **George P. Allgaier**, of Reading, Pa., employed as a marine machinist in the Industrial Division; **Robert H. Bartram**, a native of Scranton, Pa., also a machinist in the Industrial Division; **Hubert W. Jarman**, born in Clarksville, Tenn., a foreman stevedore in the Terminals Division; **Ralph E. Masters**, of Erwin, Tenn., now a member of the Canal Zone Police stationed at Gamboa; **Braxton W. Treadwell**, a native of Clay, Ala., now with the Canal Zone Police at Gatun; and **Matthew J. Wilder**, who was born in Baltimore, Md., and is now a fire sergeant in the Balboa District.

15 YEARS

Fifteen years of Government service were completed in December by 21 employees of the Canal organization. Nine of these have unbroken Canal service. They are **Winston P. Abernathy**, Time, Leave, and Payroll Clerk in the Payroll Branch; **Leonard E. Case**, Fleet Engineer in the Dredging Division; **Karl D. Glass**, Policeman in Gamboa; **James H. Hagan**, Lead Dock Foreman, Navigation Division; **John E. Hotz**, Sergeant, Locks Security Patrol; **Joseph A. Janko**, Sergeant, Locks Security Patrol, Pacific Locks; **Fred E. Mounts**, Policeman, Balboa District; **Erwin R. Oesterle, Jr.**, Window Clerk, Postal Division; and **James M. Snell**, Pipecoverer and Insulator, Industrial Division.

Others passing their 15th anniversary of Government Service last month were **Mrs. Violette D. Allen**, Clerk-Stenographer, Supply Division; **Frank R. Castanzo**, Towing- Locomotive Operator, Locks Division; **Mrs. Marjorie L. Engel**, Clerk, Personnel Bureau; **John C. Fawcett**, Teacher, Balboa High School; **Mrs. Mildred R. Largent**, Staff Nurse, Gorgas Hospital; **Lyle B. Mo-**

Seminar Group



Prof. Norton Backer, of New York University, is shown above addressing one of the two large groups of employees from the Office of the Comptroller and other units who were chosen for a two-week lecture series on cost accounting. This is the third of such lecture series to be presented as a part of in-service training.

Mechanized Care of Grounds Coming Soon For Canal Zone

That well-known Canal Zone figure, the macheteman, will soon be almost a thing of the past. Instead of whacking away at the edges of lawns, stubborn undergrowth, or simply a few blades of grass, most of them will be riding or

guiding one of the Housing and Grounds Division's fancy new machines, doing the same jobs a lot faster and without having to stop every few minutes to sharpen a machete.

Already in use on both sides of the Canal Zone is such new equipment as edgers, lawn sweepers, hedge shears, and power mowers of a type never seen here before, together with a lot of other specialized pieces which will make the care of grounds a lot quicker and more thorough operation.

All of the 14 types of new grasscutting, lawn-cleaning, and general tidying-up machines are being used on a trial basis. So is a new vacuum street-cleaner, different from the street-cleaning machine which was tried here some years ago and did not prove particularly successful. When the Housing and Grounds personnel have decided which machine does which job the most efficiently, they will recommend the purchase of more machines of the most satisfactory kind.

The adoption of a mechanized system for keeping the Canal Zone's grassy hair cut and combed is in line with the efforts of the Canal administration in many other fields to economize by a more efficient use of its manpower.

Officials of the Housing and Grounds Division have high hopes for their planned mechanization. With all of the new kinds of machinery available, they see no reason why the Canal Zone cannot always be neat and tidy, even at times of year like the present, when leaves are falling from the deciduous trees.

rau, Police Sergeant, Balboa District; **Francis J. Reilly**, Plant Accounting Assistant, Office of the Comptroller; **Albert N. Ruoff**, Diesel Operator Machinist, Electrical Division; **Roy A. Sharp**, Lead Foreman, Housing and Grounds Division; **Kenneth A. Thompson**, Auto Repair Machinist, Motor Transportation Division; **Mrs. Mary B. Turbyfill**, Elementary School Teacher, Diablo Heights; and **Merlin B. Yocum**, Supervisory Cargo Officer, Terminals Division.

RETIREMENTS

Retirement certificates were presented the end of December to the following employees who are listed alphabetically, together with their birthplaces, positions, length of Canal service, and future addresses:

Lester Thomas Brennan, Missouri; Lead Painter Foreman, Maintenance Division; 11 years, 6 months, 28 days; San Gabriel, Calif.

Howard R. Harris, Tennessee; Mechanical Supervisor, Atlantic Locks; 30 years, 7 months, 11 days; Knoxville, Tenn.

Antonio Ortiz, Puerto Rico; Grease-Rack Attendant; Motor Transportation Division; 24 years, 11 days; Panama.

Norman A. Terry, New York; Ferryboat Master, Navigation Division; 17 years, 11 months, 6 days; Canal Zone for present.

Allen G. Tuttle, Montana; Motorboat Maintenance Mechanic, Navigation Division; 17 years, 7 months, 8 days; Pomona, Calif.

TRANSITS BY OCEAN-GOING
VESSELS IN NOVEMBER

	1956	1957
Commercial.....	654	779
Government.....	19	25
Total.....	673	804

TOLLS*

Commercial.....	\$2,882,550	\$3,526,484
Government.....	81,756	82,993

Total.....\$2,964,306 \$3,609,477

*Includes tolls on all vessels, ocean-going and small.

CARGO (Long tons)

Commercial.....	3,745,223	3,996,149
Government.....	70,825	65,689

Total.....3,816,048 4,061,838

ROUGH TRIP

Passengers on the Panama liner *Ancon*, which left New York for Cristobal December 11, reported one of the roughest passages of the year. Those who made the trip said that the ship hit rough weather outside New York harbor and it continued until after the vessel passed the coast of Florida. One time the waves were so high that several of the heavy glass windows on the promenade-deck were shattered.

Despite the heavy weather, none of the 90 or so passengers were injured, and the majority were such good sailors that they very few missed regular meals. The vessel arrived in Haiti only one hour behind schedule.

WINE TANKER

The *Angelo Petri*, the first United States owned wine tanker, which completed its first round trip between the west and east coast ports in October, made a second southbound transit of the Canal late in December on her second return-trip to California.

On the outward trip, the tanker carried 2,500,000 gallons of wine, and on the return-trip from Houston to Stockton, Calif., the cargo consisted of edible oils. The cargo is carried in stainless-steel vats which are steam cleaned after the cargo is discharged. The company plans to have the *Angelo Petri* make seven round trips between Stockton, New Jersey, Houston, and back each year. Boyd Brothers act as agents for the ship at the Canal.

OUTWARD BOUND

Six hundred British emigrants will visit the Canal briefly at the end of January aboard the *SS Captain Hobson*, a British Government emigrant ship operated by Shaw, Savill & Albion.

The emigrants, who are en route from Great Britain to New Zealand where they will make their new homes, will visit points of interest on the Pacific side when the ship docks in Balboa after making the Canal transit.

The *Captain Hobson*, together with the *Captain Cook*, makes three such voyages from England to New Zealand and Australia each year. The *Captain Cook* is operated by the Donaldson Line.

VACATION SCHEDULE

Employees who are planning to take vacations in the United States next summer have been urged to make early reservations on the Panama Line ships sailing from May through September. Ap-



A Canal record breaker last month was the super ore carrier *Cosmic*, shown here in the Cut; 744 feet long, she is the largest of her class to transit the Canal.

Zonians who missed the huge ore carrier *Cosmic* on her first transit last month had an opportunity just before the end of the year to see the great ship which had made her maiden transit of the Canal December 17. She returned to Balboa December 30 with iron ore from Chile en route to the United States.

The *Cosmic*, shown above on her southbound transit, almost dwarfed the Cut. She is 744 feet long. If some giant hand could lift her from the water onto Balboa Prado, she would stretch from the front steps of the Service Center toward the Administration Building 44 feet beyond Enterprise Place.

Four pilots were used aboard the *Cosmic* for each transit, as she has a beam of 101 feet, giving her a clearance of only four-and-a-half feet on either side in the Locks. Built in Japan, her deadweight tonnage is listed as 46,674 tons.

The *Cosmic* is the third largest commercial vessel to transit the Canal, being exceeded only by the German liner *Bremen* and by the *Nieuw Amsterdam*.

plications will be accepted not more than four months in advance and accommodations will be made in the order in which they are received in the Transportation Section, according to an information circular issued at Balboa Heights. During the summer months, preference will be given to teachers and to employees with children of school age traveling on ships sailing northbound from May 21 through June 25, and southbound from New York for the period extending from August 8 to September 12.

The schedule of Panama Line sailings during the peak vacation period for 1958 follows:

From Cristobal—May 21, *Cristobal*; May 28, *Ancon*; June 7, *Cristobal*; June 14, *Ancon*; and June 25, *Cristobal*.

From New York—August 8, *Cristobal*; August 15, *Ancon*; August 26, *Cristobal*; September 2, *Ancon*; and September 12, *Cristobal*.

FRUIT SHIPMENTS

An increase in the amount of fresh fruit being transported through the Panama Canal from the U. S. West Coast ports to Europe was indicated by Panama Canal figures for the first two weeks in December. During this period approximately 7,400 tons of fresh apples, grapes, and pears were carried on various European and British vessels to England, Belgium, Sweden, Holland, and Germany.

The increase in fresh-fruit shipments to European markets reportedly was due to the poor European crops caused by this year's adverse weather. The European apple crop, for instance, was down one-half from normal production, and the pear crop was down by a third.

Shipping Magazine Describes
Supertanker's Canal Transit

An article describing the first transit of the Panama Canal by the supertanker *Esso Colombia* is carried in the current issue of *The Ship's Bulletin*, a publication of the Esso Shipping Company.

The article is of considerable interest locally and to the shipping industry generally, because it describes the operating characteristics of large vessels in restricted water. Data for the story was obtained through the cooperative effort by the Canal's marine officials and the Esso Shipping Company.

Arrangements were made in advance of the supertanker's transit for observations to be made from ship and shore to obtain precise data on such aspects as maneuverability, draft changes, speed and stern sinkage, sheer, water-surges, and other data of this nature.

The article was written by R. Schaefer, Marine Designer of the Esso Shipping Company, who said in his introductory statement:

"The advent of supertankers of 35,000 dwt. tons and upward has made it necessary for operating companies to take a new look at problems that arise in connection with the transit of such large vessels through the Panama Canal, other canals, and restricted waterways. In addition to the physical limitations on length, breadth, and draft, due to the dimensions of existing locks and Cut facilities, other effects which heretofore had not been of too much importance with the smaller vessels must now be carefully considered."